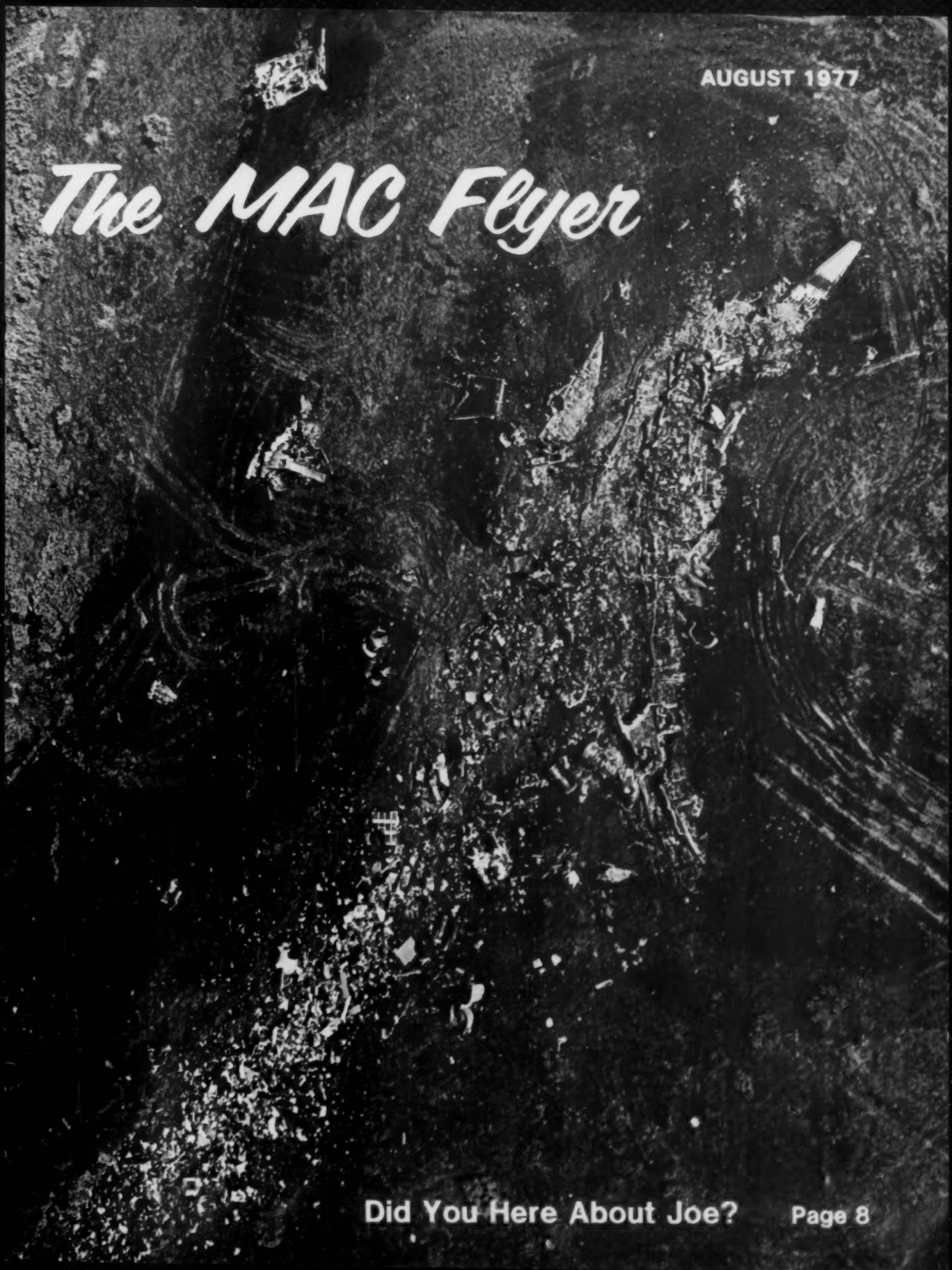
AUGUST 1977
The MAC Flyer
Did You Here About Joe? Page 8

MILITARY AIRLIFT COMMAND

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The MAC Flyer

For Greater Efficiency
in MAC Air Operations

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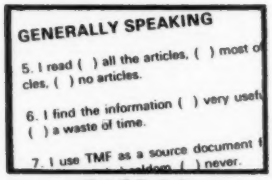
GENERALLY SPEAKING
5. I read ( ) all the articles, ( ) most of
cles, ( ) no articles.
6. I find the information ( ) very useful
( ) a waste of time.
7. I use TMF as a source document
( ) never.

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Sometimes it's okay to keep things loose. But when the going gets rough, it's a good idea to use . . .

A Little Restraint

Nobody likes turbulence. The garden-variety coffee-spilling kind is a nuisance; the really bad stuff can rip an airplane apart. The in-between range is usually just scary; it doesn't hurt people or airplanes—unless, of course, they're not prepared for it.

The C-130 was number 14 in an 18-ship formation scheduled for container delivery system (CDS) airdrops. Twenty minutes after takeoff, the loadmasters removed the vertical and lateral tie-down straps from the load—an action not required by the checklist for nearly another hour. One fore-and-aft strap was left on the load for parachute restraint.

Not long afterward, the Hercules was jolted by severe turbulence. Loose equipment was tossed about the aircraft; briefcases, publications, and individual parachutes were thrown against the ceiling. The loadmasters saw the two CDS bundles shift to the side of the cargo compartment, allowing the single parachute restraint strap to fall free.

As the turbulence abated, the loadmasters began securing the now unrestrained load. But before they could finish, the aircraft encountered a second area of turbulence so severe that G forces of plus 2.5 to minus 1.2 were recorded. Both loadmasters and one bundle were thrown against the ceiling; the bundle damaged the left troop door track and the overhead centerline lighting panel before coming to rest on its side. Both loadmasters received cuts, bruises, and spinal injuries, and one suffered a six-inch scalp laceration.

The aircraft commander declared an emergency and returned to home station. The flight engineer restrained the load and administered first aid to the injured crewmembers.

This mishap is only one of several recent incidents in which people were hurt during encounters with turbulence—and in each case, the injuries could have been avoided by proper restraint of personnel and cargo. 'Nuff said.

In the aftermath of an accident, many things change. Most of the changes are good. Others only *look* good.

CYA

We received one of those anonymous letters the other day, challenging us as safety officers and journalists. Read for yourself:

THE MAC FLYER Staff,

Having witnessed message traffic after recent MAC accidents, I feel obliged to express myself. All too often, "they" (the staff) overreact in square-filling trivia to show "him" (CC) some tangible action "they" have taken.

I have witnessed this same phenomenon under a different MAJCOM. However, before "they" fell off the deep end an article appeared which seemed to bring them back to some point of realism (see attachment). Never have I observed "users" (actual flyers) rally and patronize an article so. The Canadians may have hit it on the nose.

I offer this article for your review and to publish (if you are in fact *responsible* journalists). Someone has spoken up; now it is up to you to help us.

Hopefully,
The Masked MACman

Dear Masked,
Help is on the way. Here it is, and we're not filling squares.
The Editors

Canadian Forces Glossary

CFP 100—Canadian Forces Flying Orders "bible," which contains the rules and regulations for VFR, IFR, flight planning, etc. These orders can be— and usually are— augmented by command and unit orders. (Something like AFR 60- 16 as supplemented.)

Ops Memos—System used by squadrons to detail temporary changes in orders or to "fill in" until amendments are published. (Similar to our Flight Crew Information File.)

Squadron Standards Officer—Standardization/Evaluation Pilot.

(This article first appeared in the Canadian Armed Forces Flight Comment *and was reprinted in* TAC Attack.)

Clearing one's Yard-Arm (CYA) is a game by no means reserved for sailors or those of a nautical bent. CYA is played everywhere—even on flying bases—and is especially popular with supervisors. Hockey, golf, and baseball may be seasonal favorites but CYA is a year-round pastime. . . and anyone can play.

Most CYA players were originally participants in the more orthodox game of MA (Mission Accomplishment) and the similarity between the two games can lead to some confusion. Still, the best way for a learner or beginner to become proficient is to study the great games of the masters. Watch the experts at play and then decide for yourself. Is "Clearing one's Yard-Arm" the game of the future or is there more real satisfaction in Mission Accomplishment?

The account which follows is of an imaginary game, but it does indicate the extremes to which CYA players can go.

Pitchout's Punchout

Lt Percy Pitchout was a keen young pilot, well liked by his squadron buddies and a real ball of fire and fun on Friday nights and at squadron parties. A swinging young bachelor, he was enjoying his first tour after Wings graduation. After all, at 20 years of age, who could ask for anything more than a sleek, fast fighter aircraft in which to burn up the sky?

One bright spring morning Percy roared off on a routine low level navigation training mission. Forty-eight minutes after takeoff, a telephone call from a rather confused farmer's wife advised the base MP shack that a pilot was nursing minor injuries in a farmhouse 185 miles northwest of the airfield. Pitchout had punched out moments before his aircraft crashed into a rocky, pine-treed ridge. Base Rescue launched its helicopter and while Pitchout was being safely returned to base, an accident investigation board was convened.

After burning the midnight oil for a couple of weeks, the board members packed up and went home, leaving the wreckage (which was in a very inaccessible spot) under the pine trees. The bound volumes of their investigation, findings and recommendations were duly signed, sealed and sent on their way to travel from desk to desk, through the musty chambers of various headquarters until "Pitchout's Punchout" was finally laid to rest, another statistic on an accident rate graph, another colored slide for a commander's briefing.

Essentially, the board "found" that the young lieutenant's aircraft had been serviceable and functioning properly on impact. Pitchout was able to fill in the details. En route at 500 feet, he had encountered some scattered stratus and had descended below the cloud. The scattered condition rapidly became overcast. Flying down a valley, Pitchout suddenly realized that he wasn't going to clear the ridge ahead. He attempted to pull up but decided to eject when he felt the aircraft contact the trees (the board congratulated him on his decision). The facts were therefore quite clear and the board stated as much. Pitchout admitted that he had "pressed on into deteriorating weather conditions which forced him to descend to maintain visual contact with the ground." However, some other observations were made by the investigating team:

> Pitchout had not had breakfast on the eventful day.
>
> Pitchout had signed out in the wrong column.
>
> Pitchout had just returned from two weeks' leave and this was his first flight.
>
> Pitchout—along with others—had not signed squadron flying orders for the quarter.

Now Pitchout was relatively inexperienced and

had been in the squadron less than a year. But his squadron commander, Lt Col Gung Ho, had a multi-year and a multi-type background. He was naturally perturbed at the loss of the aircraft and the close call for young Percy. He became even more concerned when *his* commander arrived without warning and suggested, in the strongest terms, that Gung Ho shape up his operation or else.

Obviously Lt Col Gung Ho's operation was somewhat "loose." Operations control seemed nonexistent. Pitchout had been gone for two swinging weeks with his hot honey and a new Corvette, and yet he arrived back at base and set off on a low level nav mission without so much as a quick taxi test. Signing out in the "time of takeoff" column and failing to sign the squadron flying orders are not prerequisites for flying into the trees but they do indicate a somewhat lax attitude on behalf of all concerned. Fortunately, Pitchout was still alive, but a valuable aircraft had been destroyed. What could be done to prevent a similar incident in future? Half a mile of shattered airplane and an injured pilot adds up to lots of zeros below the line. The only plus factor in this type of occurrence is in its preventive value. If some lessons can be *learned* and then *applied* . . .

This was the point where Lt Col Gung Ho could have made the opening moves in a serious game of MA—but, instead, a classic example of CYA developed.

How Lt Col Gung Ho Played CYA

Lt Col Gung Ho called a Squadron Flight Safety Meeting.

The FSO briefed on the dangers of continuing a mission in deteriorating weather conditions.

The FSO exhorted the pilots to have breakfast every morning.

Base, Squadron, and Command Flying Orders, CFP 100 and Ops Memo were to be "signed as having read" *every month* vice every quarter. Furthermore, a new memo was placed on the squadron noticeboard to be signed when the other pubs had been signed off.

The visibility limits for low level nav missions were raised from three to five miles.

All pilots returning from leave were to have a dual checkout.

Pitchout was given a check ride with the Squadron Standards Officer and returned to the flight line stamped "serviceable."

A copy of the Flight Safety minutes was immediately sent to command headquarters.

Lt Col Gung Ho was satisfied. He was fairly confident that his commander would be satisfied—and he was right. Young Percy was just an inexperienced "tiger" now duly chastened. The operation had been tightened up and everyone could sit back and relax. Even those Flight Safety characters could hardly complain. "Pitchout's Punchout" would soon be forgotten and the squadron could carry on doing its job—just as before.

How Could Lt Col Gung Ho Have Played MA?

It is doubtful if Lt Col Gung Ho could start a real game of MA by himself. He probably needs some coaching from a higher supervisory level. Although his CYA moves point in the right direction, their value in most instances is negative.

The Flight Safety Meeting was expected—although no one could remember when the last one had taken place. According to the minutes, *all* pilots were briefed about pressing on in bad weather (but two were on TDY, one was on leave, one was at Staff School, and another was at Language School). Since FS meetings were so few and far between, the response from the squadron might be, "Ho hum, here we go—the old flight safety routine." Instant switchoff.

If Lt Col Gung Ho is to play MA he must evaluate himself and his whole operation in terms of the objectives established by the service. His attitude toward the flying operation creates the atmosphere in which his subordinates work. If Gung Ho merely pays lip service to the goals of the organization then Pitchout's Punchout will be just one of many

failures. Regular, programmed squadron meetings with Gung Ho as a *participating, decisive* chairman should be the rule rather than a quickie CYA move when things go wrong. At one of these regular meetings the Base Flight Surgeon could be on hand to give a forceful talk on the advantages or necessity of having some food intake before flying. The FSO, "exhorting" aircrews to gobble up their Shreddies, is hardly speaking with any authority.

What about signing all the pubs monthly instead of quarterly? Well, if Gung Ho's troops aren't signing every three months, it's doubtful if they'll be leaping up, pen in hand, to sign on the first of *every* month. (CFP 100 may be getting thinner but it's not getting any more exciting.) "Sign as having read" has come to mean "Sign as having signed." Obviously some system must be established for aircrew to be advised of any changes in orders or procedures but not to the point where the pilot has writer's cramp before he reaches his aircraft.

Gung Ho increased the limits for VFR to 1,000 and five. In effect he is saying to his pilots, "I don't trust you, you Souls on Board, you'll drop me in it given half a chance." The next time someone tickles the trees Gung Ho will say to the commander, "See that, and I even added on some extra limits for safety!" Of course the original limits were quite acceptable and provided an adequate operational training situation. If Gung Ho continues with this line of play he will eventually fudge himself into a position surrounded by all his aircraft in a locked hangar.

The requirement for pilots returning from leave to have a dual checkout is worthy of an MA player (after a few days off, a little dual with an experienced pilot never hurt anyone). But the real value of such a ride will depend again on the *attitude* of the supervisory staff which, in turn, influences the behavior of the line pilots. So often this checkride is just a mutual buddy-buddy trip. The flight becomes a casual touch and go practice rather than a professional workout to get rid of the cobwebs. (These trips *also* contain the seeds of disaster.)

Finally, there's little Percy, the prime mover in all this. He's now back in harness—fit for duty. But is he? The Medical Officer has given him a clean sheet and the Squadron Standards Officer has given him a check ride. No problems. What did Gung Ho expect? Did he think Pitchout would go and fly into the trees again—or forget to put his gear down? No, Pitchout may continue his flying career for 20 years and never have another incident—or he may not be so lucky. If he doesn't make it he will become a topic for bar talk. The old heads will gather round: "He was an accident looking for a place to happen," "I knew he'd never hack it," "Remember the time when he punched out?" These are the disappointing comments which mean that somewhere, sometime, someone sloughed off his responsibility to young Pitchout. It isn't good enough to *hope* the young sprout will make it and then hide behind earlier prophesies when he plows in. Why didn't someone speak up earlier? Why didn't the experienced pilots take Pitchout aside and give him the benefit of their years at the stick? Why didn't Gung Ho recognize that Pitchout needed some personal attention, training and regular evaluation? Why . . . ?

Why Lt Col Gung Ho Plays CYA

This is the most difficult question to answer without having access to the clockwork in Gung Ho's head. The incredible paradox is that Gung Ho thinks he is furthering the aims of flight safety. In effect, he is doing just the opposite. Perhaps:

> Gung Ho turned to CYA because it was *easier* to play. Authority is lots of fun if you can get rid of the responsibility that goes with it. MA demands *effort*. In the case of Pitchout, it demands a careful appraisal of a pilot and an operation. This is a difficult task but essential if the squadron is to develop with any prospects of growth and success. Rather than search for the root causes and try to prevent a recurrence, Gung Ho found it easier to have his aircrew sign a few pieces of paper.
>
> Previous experience had convinced Gung Ho that it was best to look out for himself. A few extra restrictions on the squadron wouldn't hurt and would prove he was "tightening up."
>
> The goals of the service had become secondary to personal objectives. "Let's see—I've got two more years to my 30 so if I can just keep my nose clean. . . ."

The sad story of Pitchout's Punchout and the ensuing account of Lt Col Gung Ho's gamesmanship are, of course, completely fictitious. No one would go to such great lengths to avoid facing up to responsibility. And by the way— how's *your* paper-signing hand?

We all know people who are just too sharp to wind up as accident statistics. People like Joe—and ourselves..

Did You Hear About Joe?

Ever had a friend come up to you and ask, "Did you hear about Joe? He was on the bird that crashed yesterday."

Every fatal aircraft accident brings the same questions: "Where was the plane from?" or "Who was on the crew?" or " I have a friend in that squadron." When you finally see the crew list, you get that sinking feeling as you recognize a familiar name. Then, "I can't believe that about Joe. I thought he was too sharp to get into a situation like that."

But when that comes to mind, aren't you really saying that the inept aviators are the only ones who have accidents? Does everyone feel that only Karl Klutz winds up in that smoking hole in the ground?

There's a malicious game the more intrepid aviators sometimes play at the local watering hole after a few rounds of suds. It's called "Pick the Worst Crew in the Squadron." The rules are simple: Merely pick the weakest guy in the squadron for each crew position and place them together on an imaginary crew.

Second place winner, 1977 MAC Flying Safety Writing Contest

by Maj Patrick S. Boab
133 TAW (ANG)
Minneapolis-St Paul IAP
St Paul, Minnesota

Are the inept aviators the only ones who have accidents?

Then, the group sits back with a self-satisfied air and some wag says "They wouldn't even get the engines started." Everyone wisely nods in agreement because they are certain that kind of crew causes accidents. Satisfied with their contribution to flying safety, they lean back and order another round. Would our friend Joe have been selected for that infamous crew?

Everyone professing to be an aviator has undergone rigid screening to earn his wings and get into an operational squadron. But, after all the testing, screening, checkrides, and so on, we must admit that there are the "superfliers," the "I - can - get - you - there - but - don't - expect - too - much drivers," and the "Jeezus-was-that-close types." (Who would admit to falling into the latter category?) But, if we rank fliers like faces on a totem pole, is it always the poor slob on the bottom of the heap who winds up being an accident statistic?

Think back to some of the people you knew who were involved in an accident. You'll come up with a superjock—a guy who was just too fine a pilot to die in a crash. You may also recall some pilot who, as could be expected, pulled a bone-headed stunt. But most of those who come to mind were just good old boys. Nothing extraordinary about them in any way. If you're honest with yourself, you'll wonder whether, under the same circumstances, you might not have made the same mistakes.

Let's categorize accidents into two types: those involving aircraft malfunctions and those that do not. We often read of aircrews bringing one in safely after everything had fallen apart around them. You've heard the old expression: "Two turning, one burning and one standing at attention." These are situations in which crews were simply reacting to a malfunctioning machine.

There are times, however, when this type of accident doesn't have a happy ending. A friend of mine was flying an aircraft when a prop separated; parts of it ripped through the fuselage, wiping out another engine. But he still had a chance. He and the crew were working hard to save themselves. To anyone reading the accident report, only in the last few sentences does it become apparent that the crew isn't going to make it.

This type of accident is as tragic as any, but at least there's a logical explanation for what happened. The accidents I don't understand are the second type.

How can a crew take a perfectly good airplane in perfect weather and turn it into a pile of junk out on the back 40? I had a navigator friend who was killed when the pilot flew back into the ground after a night VFR takeoff. When I read the accident report I couldn't believe it. How could a sharp, intelligent person like Joe be a party to such a thing? He was too good a crewmember to allow that to happen. But it did happen. I know Joe had to have been aware of the altitude, heading, and airspeed. He must have watched the whole thing unfold. Or did he? Was the crew distracted by something or just guilty of complacency and inattention? All we can do is speculate after the fact.

ABOUT THE AUTHOR

Major Boab, who was the third place winner in last year's contest, is an Air National Guardsman serving as safety officer with the 133d Tactical Airlift Wing at Minneapolis-St Paul International Airport. He has undergraduate degrees from Penn State University in aeronautical engineering and from New Hampshire College in business, as well as an MBA from Auburn University.

Major Boab flew KC-97's and KC-135's during his ten years' active duty with the Strategic Air Command; his Guard flying has been in C-97's and C-130's. As a civilian, he flies for Northwest Orient Airlines and serves on the Airline Pilot's Association Safety Committee.

Then there was a crew that ran a four-engine tanker into the ground on a nice sunny day. Incredible. An inexperienced crew? Or, perhaps, it was the worst crew in the squadron, the one hand-picked by the pundits at the club. Would you believe it was a standardization crew?

Another crew ran their aircraft into a hill in Spain. The copilot insisted they had been cleared to 3,000 feet when, in fact, the clearance was only to 5,000 feet. The navigator finally caught the mistake but it was too late. Where was the attention of the other four aircrewmembers? To err is human, but for four aircrewmembers to commit the same error simultaneously is inexplicable.

Maybe "SOMEBODY FLY THE AIRPLANE" should be a universal bold-face item.

One civil airline has made "Fly the Airplane" its first memory item for all emergencies. At first glance this sounds so elementary as to appear ludicrous. However, without someone flying the aircraft, a simple problem may be compounded to the point of no return. If this is the first step for emergency procedures, perhaps it should be the first step in all in-flight checklists. Should we have "Fly the Airplane" embossed in six-inch letters on *all* instrument panels?

It is neither the low man on the pole nor that worst crew that has the accidents. It's you, me, and our sharp friend, Joe.

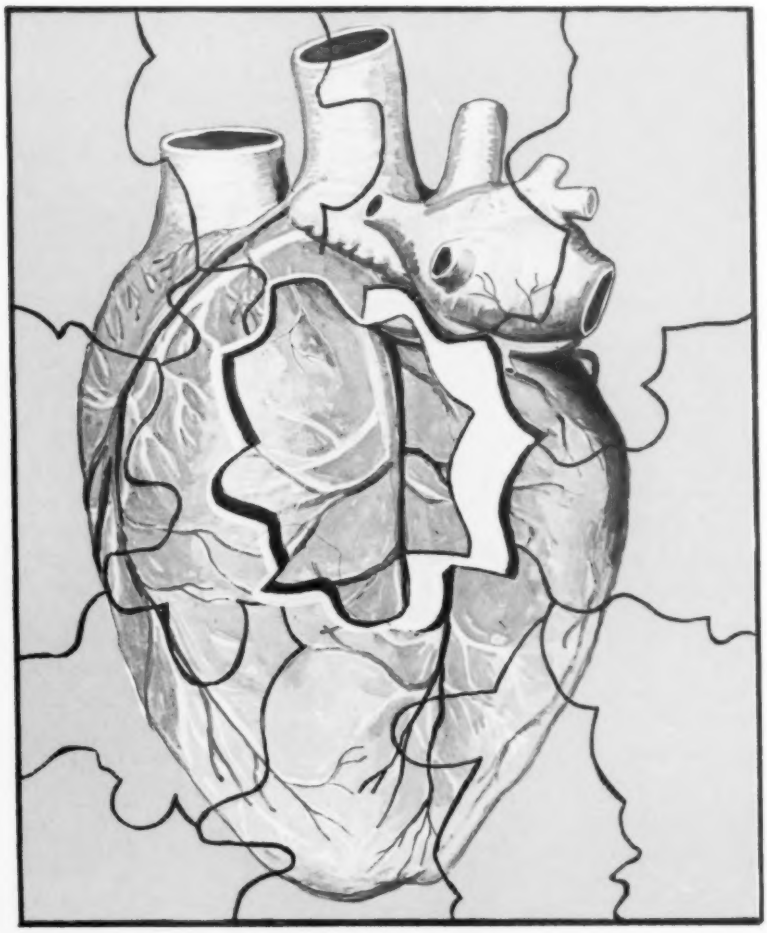
So, if you've been playing that infamous game called "Pick the Worst Crew," ask yourself these questions: What have I done to make Karl Klutz's job easier and safer? If he is the weakest guy in the squadron and on the worst crew, what can I do to help? Did I submit an 847 to get that faulty checklist changed so it wouldn't trap someone else as it almost did me? Did I get on the phone after I landed and let the guy in approach control know that the screwy clearance he gave caused a lot of cockpit confusion? Did I pass along to someone who hasn't been there those little bits of information that could assist him in flying into a seldom-used airfield? Or did I just grumble a bit, make a mental note not to get caught in that trap again and let it go at that?

While each of us clearly recognizes the potential for the next accident, few take the time or trouble to help prevent it—even when it's within our ability to do so. We never know for sure when we've prevented an accident, but we all recognize a pile of junk that used to be an airplane.

So give the other guys, the sharp ones as well as those not so sharp, a break. Don't let "Did you hear about Joe?" become a question that your conscience won't let you forget.

The Coronary Conundrum

by Air Commodore H.B. Kelly, MVO, MD, BS, MRCS, FRCP, DCH
RAF Consultant Adviser in Medicine



There's no question that heart disease is a killer. The real riddles are: What causes it? And what can we do to prevent it?

Most people are aware that coronary artery disease is now one of the principal killers in this country and indeed in most civilized western countries. In any one year in the United Kingdom 40,000 people under the age of 65 will die from it, the majority being men. Yet there are other parts of the world where it is rare, and even here it has only become such a scourge in the last 50 years.

Not everyone may be clear as to what the term coronary disease means. The heart is a muscular pump with the remarkable property of continuing to function continuously throughout a person's life. Two coronary arteries come off the aorta, or main blood vessel leaving the heart, and then branch throughout the heart muscle to maintain its blood supply. The name is derived from the slightly fanciful likeness of the arteries to a crown encircling the heart. These arteries, like those elsewhere, are liable to a form of degeneration called atheroma. This tends to increase with age and is the fundamental problem to be considered. If atheroma could be prevented, the coronary problem would be greatly diminished if not totally abolished.

Patches of fat substance are formed just under the inner lining of the artery and this may produce narrowing which can impede the flow of blood. Also, the normally smooth lining can be roughened so that thrombosis (a form of clotting) of the blood in the artery can occur. This narrowing may only have an effect when the blood flow through it has to be increased as when the heart has to work harder during excercise. The relatively deprived muscle protests by producing a temporary and usually characteristic pain in the chest called angina. The sudden obstruction of the artery which may occur with coronary thrombosis is more dramatic and potentially serious and may occur in the absence of exercise. Because the blood supply to the area of heart muscle beyond the block is cut off, there is a real risk that muscle may be irreparably damaged and become nonfunctional, healing over a period of weeks into a scar. The long term effect of this will depend on the extent and situation of the damage. However, about 30 percent of

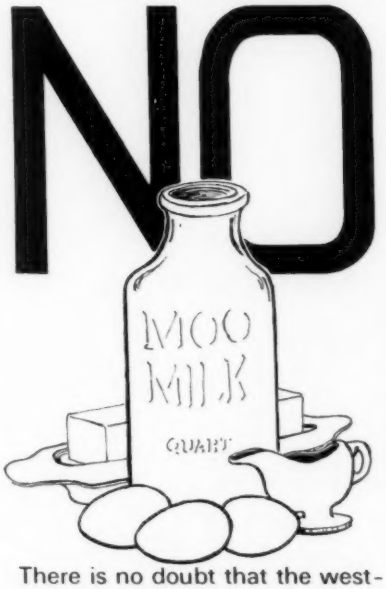
cases may die at the time of the attack or soon after.

This, then, is the problem in need of solution; and one wonders whether this solution lies in a study comparing the populations and individuals so affected with those who aren't. It does seem that coronary disease (and indeed all manifestations of atheroma) are uncommon in certain populations such as Chinese, Japanese, Bantus of South Africa, and Okinawans to mention just a few. Although inheritance may well be partly responsible for this, members of these groups who transfer to a western situation and adopt its life style develop a coronary disease tendency similar to that of their new hosts. Thus, Japanese in Hawaii have an incidence of coronary disease midway between that of Japan and that of Japanese living on the western seaboard of the USA, where they have the same risk as Americans as a whole. In Arizona, the Navajo Indians are said to have much less coronary disease than the rest of the population of that state, presumably because they retain their traditional way of life. Even in Europe there is a variation from one part to another, the southern Italians being among those who suffer less.

The most likely factor in all this seems to be the fat in the diet, either in quantity or quality. In areas where there is a lot of coronary disease the overall fat in the diet is, generally speaking, higher and tends to be derived largely from animal sources, whereas in the low incidence areas the fat tends to be more from plant origin. This may not be the entire answer, however, as there is a remarkable difference in the amount of coronary disease in two different parts of Finland where dietary differences do not seem to apply.

Saturated

The expressions "saturated" and "unsaturated" fats refer to their chemical structures. The saturated fats in the main come from animals and are more likely to lead to atheroma formation.



There is no doubt that the westerner's traditional diet of "rich" foods such as dairy products and fat meat is an important factor, but to make much difference to the overall incidence of the disease the dietary habits of entire communities would have to be altered. It is a fact all manifestations of atheroma, including coronary disease, have declined following enforced deprivation such as in Norway and other European countries during and after the Second World War.

There are other factors of very considerable importance which play a major role in determining those individuals within a particular population who will be more likely to develop coronary disease. These are now called risk factors, and the degree of risk increases with the extent to which that factor operates and how many of them apply.

The main factors are heredity, smoking, high blood pressure and lack of exercise. There are others of lesser importance, and among these can be listed the tendency to be overweight. Of the major risk factors, as far as each individual is concerned, smoking and lack of exercise are the two most important if only because they are the ones he can do something about. If one's forebears died in great numbers of coronary disease, possibly at an early age, there is nothing one can do about the basic situation, but more than ever it behooves that person to pay attention to the other risk factors.

Smoking

Smoking is something everyone can do something about. There is no need for anyone to smoke. It is a drug addiction and, like others, once established it is hard to break. Far better never to acquire it. It is harmful in many different ways

and the increased tendency to coronary disease is just one of these. Put in simple terms the chances of a person who smokes 20 cigarettes daily developing any form of coronary disease is approximately twice that of the nonsmoker, whereas the chances of the smoker dying from coronary disease are even greater relative to the nonsmoker. The 20-or-more-a-day-man aged 40 is five times as likely to die as the nonsmoker, and when aged 50 he is eight to ten times more likely to die. The degree of risk is proportional to the amount smoked, and giving up improves it. The moral is obvious. The reason why it is so harmful is less obvious. The important constituents are probably carbon monoxide (this attaches itself to the blood and lowers its ability to carry oxygen) and nicotine which is a drug having a complex action. What is perhaps not generally realized is that inhaling cigarette smoke is virtually equivalent to a "mainliner" injecting his drugs. The drugs in the smoke are immediately absorbed into the blood as it passes through the lungs almost as efficiently as if they had been put there by a needle.

Problems with the pump start at an early age. The time to change your habits is now.

Exercise

Lack of exercise has also been shown to be a potent cause of an increased coronary disease tendency. This first became apparent over 20 years ago when a survey of London busmen revealed that drivers were far more likely to develop the disease than conductors. These two groups seemed to be similar in other respects such as social background, etc., and the main difference was the amount of physical exertion involved in their daily tasks. Since then other such surveys have produced similar results. One of the most recent concerned the leisure activities of a group of sedentary middle-aged civil servants. Those who were relatively inactive off duty were three times as likely to develop coronary disease as those who took vigorous exercise such as brisk walking, cycling, climbing stairs, swimming, jogging, heavy gardening and so on. The important thing here is that it is not necessary to become an exercise fanatic indulging in exercise possibly inappropriate for one's age, but even a relatively small change to increased activity can improve matters.

Unfortunately, modern life encourages physical indolence, so that a conscious effort may have to be made not to take the car, but to walk or cycle instead. The aim should be to maintain regular reasonable physical activity throughout adult life. The beneficial forms of exercise are the dynamic sorts involving brisk walking, running, or swimming, which are sufficient to increase heart and breathing rates rather than the static isometric kind such as weightlifting.

High Blood Pressure

It is unusual for high blood pressure to cause symptoms, but it is nevertheless important for several reasons, chief among which is the markedly increased tendency to coronary disease and strokes in people with this condition. It is primarily a problem for the doctor as it is one of the things that he particularly notes at periodic medical examinations. It is becoming more usual for even slight increases of blood pressure to be treated, though such treatment generally has to be maintained indefinitely.

Other Factors

There are a number of these. Generally speaking, they are of lesser importance than those already mentioned and most of them need to be treated medically rather than by the individual. An exception is obesity. Although to be overweight is harmful in life expectancy terms and in terms of general well-being, it, by itself, is not an important risk factor in the production of coronary disease though it may predispose to other conditions (e.g., diabetes) which are. However, it certainly is something which the individual can do something about. Although some people seem to

be able to tuck in to their hearts' content and remain like the proverbial rake, while others say they don't eat enough to keep a sparrow alive and yet remain like a Michelin man, it is a plain fact that weight can be reduced by cutting down on dietary calorie intake. It really does not matter within reason how this reduction is achieved so long as what is eaten contains an adequate amount of certain basic nutrients, and it is helpful to combine this with a regular exercise schedule.

Conclusions

The war against coronary disease is something we must all wage, and the earlier in life it is started the better. We have traditionally been brought up to believe that milk, butter, eggs, and cream were good for growing children, but there is a lot to suggest that this is just not so. That is not to say that these things should be avoided altogether, but merely that they should be taken less than previously. A fat child is not a healthy child; far from it, and he is likely to grow into a fat adult with attendant risks. Tremendous effort must be directed at preventing the young from taking up the smoking habit. It is far easier to be a nonsmoker if you never start, and one of the best ways this can be achieved is by adults setting the good example of not smoking. Regular exercise should become an established custom, and if this and the other measures mentioned were adopted, the coronary conundrum could be a good deal nearer solution.

—*Air Clues*, May 1977

Tell Us Like It Is!

Your Opinion, Please

Dear Pilot / Navigator / Engineer / Loadmaster / Weatherperson / Mechanic / Lady / Gentleman,

Someone once said that THE MAC FLYER is the finest fly-safe pub in the business—it was probably one of the egocentric TMF editors. Unfortunately, that's pretty hard to prove because staffers don't get a lot of feedback from the readers. We attribute that to the fact that we're doing such a good job—but TMF's devil's advocate (our rating official, in this case) says it's because nobody *reads* the mag. Can you believe that?

But on those restless nights when we stir and get up at two o'clock in the morning, open a beer, and contemplate C.R. Terror, we sometimes wonder if in fact anybody *does* read TMF. Hence, the tear-out centerfold.

A tear-out survey is not the most valid—only those who read the mag will have access to the questionnaire. But this is where you come in. There are four questionnaires in the centerfold; if you'll just rip them out, cut them up, fill one out yourself and hand the other three to your flying buddies, that'll help.

When you answer the questions, be honest—we can take it. Tell us what you don't like and tell us what you do like.

DOD and Air Force require a readership survey every two years; even TMF editors receive guidance from above. The P. S. below really stands for "Privacy Statement."

Feel free to make any comments in the space provided—or attach a sheet if you've got lots to tell us—but take the time to give us your valuable opinion.

Stay in touch,

Ed.

P. S. In accordance with paragraph 30, AFR 12-35, Air Force Privacy Act Program, the following information about this survey is provided: (a) Authority: 10 USC 8012, Secy of the Air Force: Powers and Duties; Delegation by; (b) Principal Use: to collect a sampling of opinions on THE MAC FLYER; (c) Routine Use: to present resulting grouped data for use by decision makers in evaluating the effectivess of the periodical; (d) Participation is voluntary, and no adverse action may be taken against nonrespondents, although honest responses are needed and appreciated.

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GENERALLY SPEAKING

5. I read ( ) all the articles, ( ) most of the articles, ( ) some articles, ( ) few articles, ( ) no articles.

6. I find the information ( ) very useful, ( ) moderately useful, ( ) slightly useful, ( ) a waste of time.

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12. I'd like to see more of _____

13. I'd like to see less of _____

14. Remarks: (Tell us what you think of THE MAC FLYER)_____

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THE MAC FLYER August 1977

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Cut along solid line

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THE MAC FLYER August 1977

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Global Notes

Teamwork Tells

Maj Albert H. Willis, 1st Lt Marvin C. Clarke, and SSgt Randall W. Wagner, 773 TAS, Dyess AFB, Texas, were working on the flight line at RAF Mildenhall when they saw smoke billowing from an MB-4 aircraft heater positioned near a C-130 aircraft. Major Willis turned the heater off, and Lieutenant Clarke and Sergeant Wagner were pulling the smoking unit to a secure area away from the aircraft when it suddenly became engulfed in flames. Quickly retrieving a nearby extinguisher, Sergeant Wagner used it on the fire while Lieutenant Clarke notified the fire department and Major Willis instructed the people near the aircraft to move away because of possible explosion. Their quick actions, which contained the fire and prevented a more serious incident, earned for each of them the MAC Distinguished Individual Safety Award.

Top Junior Officer

Capt Jerrold T. Lundquist, 9 MAS, Dover AFB, Delaware, was selected as the MAC Junior Officer of the Year for 1976. Captain Lundquist is a C-5 standardization flight examiner navigator. Capt David W. Keith, Det 5, 37 ARRS, Malmstrom AFB, Montana, and Capt Maxwell C. Bailey, 774 TAS, Dyess AFB, Texas, were named first and second runners-up, respectively. Selection for the award is based on professionalism and distinctive accomplishments during the year.

Capt Lundquist

Marsey Wins!

Maj Edward R. Marsey, 89 MAW, Andrews AFB, Maryland, has been awarded the Air Force Chief of Staff Individual Safety Award for 1976.

Representing the Chief of Staff was General William G. Moore, Jr., Commander in Chief, MAC, who presented the award to Major Marsey at a ceremony held at Andrews AFB. Major Marsey is the 89th MAW Chief of Safety.

This prestigious award is presented to military members or civilian employees who have made significant contributions to accident prevention within the Air Force. Major Marsey's contributions were unique. His area of responsibility included ground and flying safety programs for personnel and for ten different types of aircraft dispersed at 15 locations throughout the United States.

General Moore and Major Marsey

Copter Record

A newcomer to MAC, the 1st Helicopter Squadron, Andrews AFB, Maryland, has accumulated a safety record which deserves special attention. On a recent mission, a milestone of 85,000 accident-free hours was attained. This was reached over a period of 20 years and included some 13,000 sorties and 680,000 takeoffs and landings in six different types of helicopters.

The 1st Helicopter Squadron currently flies CH-3E's and UH-1N's. It supports plans for emergency evacuation of key government officials, as well as providing search and rescue and emergency medical evacuation capability.

An aviator's-eye view of photoreactive lenses.

The Shade Trade

The march of technology seems to produce an endless series of fascinating new products—solid state electronics, pocket calculators, and digital watches come to mind as recent examples. Now modern science has produced another innovation: "photochromic" or "photoreactive" sunglasses with lenses that darken or lighten to match the light level of their surroundings. Sounds like a great idea, particularly for people who wear prescription glasses and don't like the hassle of changing from clear to tinted lenses when the sun comes out.

The new lenses sound tempting to aviators for much the same reason. Wouldn't it be nice not to have to change glasses as you descend out of the brilliant sky at altitude into the darkness of a real weather approach? A nice idea—but unfortunately, one that doesn't work out too well in practice. As handy as the new lenses may be, they have some definite drawbacks for fliers.

One disadvantage of photoreactive lenses is the time required for the change from dark to clear. It takes approximately five minutes for the lenses to achieve 50 percent clarity after being removed from incident light, and a total of about 15 minutes to reach 75 percent of minimum density—an obvious handicap for an aviator who may go from bright light to dark clouds in a matter of seconds. In addition, the lenses always retain some coloration; since they are never completely clear, night vision will be inhibited to some extent.

The change from "clear" to "dark" also poses problems for aviators. Darkening of the lenses is caused by ultraviolet light; since most aircraft windshields are specifically designed to cut down on ultraviolet light entering the cockpit, the lenses may never darken sufficiently for good light attenuation in bright sunlight, particularly if the crewmember is sitting in a shadowed portion of the cockpit.

AFR 167-3, para 10b, prohibits the use of photoreactive glasses by crewmembers while performing aircrew duties.

Still another possible problem is an uneven darkening of the lenses. Although unlikely, such an imbalance can have adverse effects on depth perception if it does occur.

For these reasons, the USAF School of Aerospace Medicine has not recommended the use of photoreactive lenses by Air Force crewmembers. They may be great when you're on the ground, but in their current state of development they don't really belong in the cockpit.

—Adapted from an article appearing in *Interceptor*, May 1977

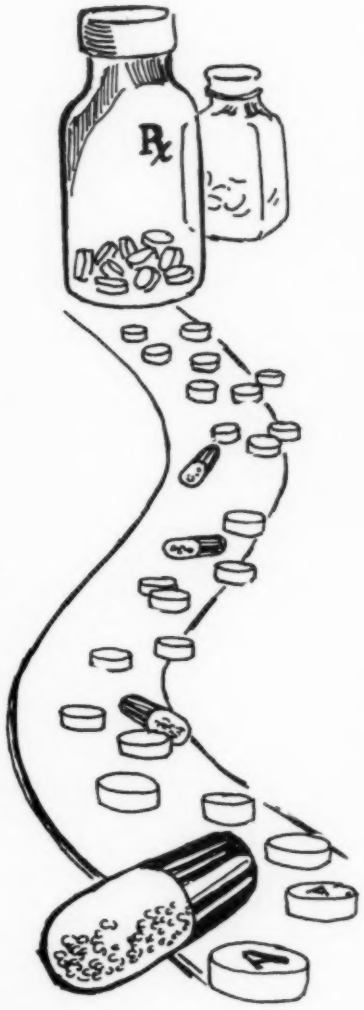
"Lucky's" luck almost runs out when he switches from full-time pilot to part-time flight surgeon.

Self-Medication: *Primum Non Nocere**

At the Ramada Inn in Rome, New York, it was the start of the fifth day of a seven-day MAC admin mission, the endless "haulin' of bods to different sods." Each crew day had lasted about 11 monotonous hours; today promised to be no better. Only two more days—two more days and then homeward bound, home to Scott Base, the little woman, a dab of crew rest, and then to Maxwell for Command and Staff. Yes, for Capt Jim "Lucky" Fellow, AC of the C-130E-Flat 323 mission, it was all downhill from here on out—except for the minor irritation of a "stuffy" head.

Yesterday on descent he had experienced some pain in his right ear, but that soon went away in the hot shower later at the motel. He hadn't been sleeping well, and that last RON at Noisy AFB didn't help the situation. My resistance is down; a good night's sleep in a plush Ramada Inn is all I need, he had thought. But this morning he wasn't feeling much better. His nose felt congested; and his mouth was dry, probably because he had been breathing through it all night. His right ear was feeling full again; but he could clear both ears, although the right one was very sluggish. To make matters worse, despite his ten-hour nap, he didn't feel rested.

As he searched his dopp kit for his shaving gear, squads of dire thoughts were double-timing along the neurons of his brain . . . . My flight is scheduled for takeoff at 0730 hours; an appointment with the flight surgeon would delay me at least an hour . . . . Besides, the flight surgeon would ground me anyway; I'd be stuck in New York—no wife, no leave, maybe no Command and Staff—they could slip me to another class or even drop me altogether . . . And what about my appointment to get my car tuned up before my leave; I had to wait two weeks for that visit—now I'll miss it altogether.



*Above all, do no harm

by Maj William K. Sullivan, MD, MSPH
USAF Medical Center, Scott AFB, Illinois

Suddenly there it was—the answer to all his problems was snuggled in the corner of his dopp kit, a small orange bottle camouflaged by a thin coat of talcum powder partially obscuring the label:

Actifed
Take 1 tablet 4 times daily
(May cause drowsiness)

He had almost forgotten about that brief episode of hay fever last year while he was on leave in Texas. Now he recalled the Air Force doctor's words in the emergency room: "You sure are stopped up; here, this'll unplug the drain, dry you up, and relieve that head congestion."

Yes, there it was—salvation in a bottle. "May cause drowsiness." Well, he thought, I took it last year when I was on leave and I didn't have any drowsiness. If one tablet is good, two is better; a friend in need is a friend indeed; and I need fast, fast, fast relief. He downed two tablets.

On the aircrew taxi ride to Griffiss Base Ops, he could

already feel his congested sinuses opening up although his right ear still didn't clear as quickly as he would have liked. Arriving at base ops at 0700 hours, he realized that he was running behind schedule and thus wouldn't have time to make it over to the snack bar for breakfast. Promising himself a hearty breakfast at the first destination, he blitzed through briefing, preflight, and passenger boarding. He made his 0800 takeoff.

Airborne again, he felt rather relieved and complacent to notice no ear problems on ascent. Now he was that much closer to mission termination. The first hours of flight at cruise altitude on this short leg were routine; and although the earth was covered by heavy ground fog associated with a warm front, the morning sun above the clouds was mellowing him. He relaxed in his soft, padded pilot's seat. His problems behind him, a bright future in front of him. The engines' drone and the ambient vibration created a womb-like atmosphere causing his heavy eyelids to float slowly earthward.

Contacting Andrews RAPCON for a PAR approach in the ground fog, he had to shake his head to keep awake. His eyelids by now were drooping badly, and he could feel his head spinning slightly; his thought processes were somewhat delayed, and he was having difficulty making decisions. At this point the copilot noticed that Lucky had to ask him to repeat a couple of glide slope corrections, corrections which the pilot only slowly executed after a prolonged initial pause.

The flight crew monitoring the approach could sense an increase in the pitch of the controller's voice, a sharp edge of increasing urgency in his glide slope corrections. But Captain Fellow couldn't be bothered with ATC's consternation. He was having problems of his own trying to stay awake and think clearly, neither of which he was doing very well. The copilot, a second lieutenant new to the squadron, timidly asked, "Sir, are you okay?" Captain Fellow, whose personal motto was "Can do!" answered in the affirmative. Like an intoxicated demonstration driver in a high school alcohol-driving film, Captain Fellow proceeded down glide slope in a wobbly, weaving approach.

The rest of the story is history. Fortunately for Capt Jim "Lucky" Fellow, late on final his right ear blocked suddenly and completely; the resultant sharp pain forced him to immediately turn the controls over to his copilot who safely landed the plane. "Lucky" went to an Andrews flight surgeon who diagnosed acute viral upper respiratory infection with aerotitis on the right, placed him on Actifed (of all medicines), and grounded him. "Lucky" stayed at Andrews a few days until he could clear his ears well enough to make the return flight to Scott—this time as a passenger on the courier. Yes, he arrived at Scott in time to make his car tune-up appointment, start his leave on the correct date, and receive his orders for the proper Command and Staff class. "Lucky" was lucky.

In medically reviewing this case, it's easy to retrace the causative chain of events. His viral URI set him up for a bout of fatigue because "Lucky," or his body anyway, was actually working harder than when he ran his aerobics in ten minutes last year. During his acute viral URI, millions of white blood cells, epithelial cells, etc., were working at their maximum, warding off their viral invaders. So at the cellular level, he was really "putting out."

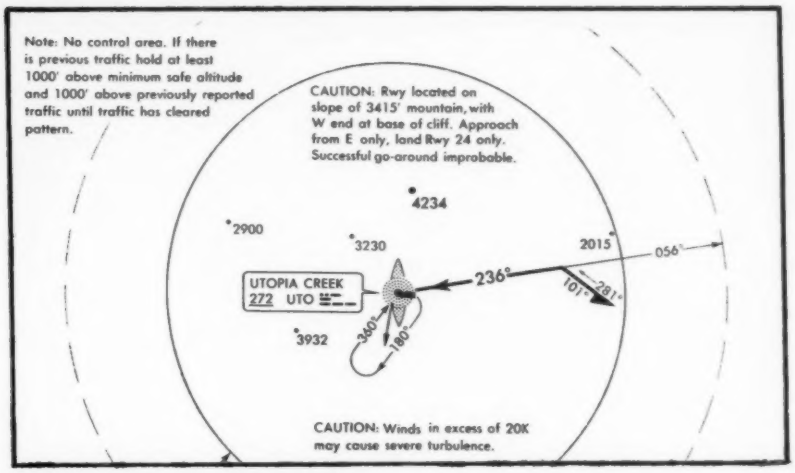
On top of busy crew days, his lack of satisfactory crew rest at Noisy AFB did not help matters. To make the situation worse, an empty stomach left him with little immediate psychological and biochemical energy reserves and paved the way for high blood levels of Actifed, easily and fully absorbed from a completely empty stomach. The swollen mucous membranes causing the intermittently and partially obstructed right Eustachian tube (between throat and middle ear) were somewhat but not completely relieved by the sudden slug of the decongestant Actifed; the descent from altitude was still able to induce the ear block.

In short, "Lucky" was well behind the medical power curve, and he got there because he ignored some principles of aviation and medicine:

1. If you're sick, don't fly.
2. If you fly anyway, don't take any medicine.
3. If you fly and take self-administered medicine, you have a fool for a patient, a Kamikaze as a copilot, and disaster as your destination.

Indian Mountain

Utopia Creek, Alaska


Note: No control area. If there is previous traffic hold at least 1000' above minimum safe altitude and 1000' above previously reported traffic until traffic has cleared pattern.
CAUTION: Rwy located on slope of 3415' mountain, with W end at base of cliff. Approach from E only, land Rwy 24 only. Successful go-around improbable.
4234
2900
3230
2015
056°
UTOPIA CREEK
272 UTO
236°
101°
281°
3932
340°
180°
CAUTION: Winds in excess of 20K may cause severe turbulence.

Approach plate warns of hazards..

Flying into Indian Mountain AFS, Alaska, presents three major hazards: high terrain; a short, steeply sloping runway; and the possibility of severe turbulence when winds exceed 20 knots. Located 305 miles northwest of Anchorage, Indian Mountain has a single gravel-surfaced runway which is 4,100 feet long and 120 feet wide and is authorized for daylight operations only.

From an elevation of 930 feet MSL at the approach end of runway 24, the terrain rises to 1,220 feet MSL at the far end for an overall slope of 6.7 percent; at one point, the slope reaches 12 percent. Because of this steep gradient and the rapidly rising terrain at the departure end of runway 24, takeoffs are authorized only on runway 06 and landings on 24. It's not unusual for C-130 aircraft to experience a 1,500 to 1,700 f.p.m. rate of *descent* during takeoff roll on runway 06.

Terrain rises to 4,234 feet within ten miles of the NDB; MDA for the NDB approach to runway 24 is 3,600 feet for all categories.

—Adapted from ISD-Q7-914

On final for runway 24, four miles out.

Steep slope is apparent from the approach end of runway 06.

The Master Manipulator slumped on his elbows at the Yokota bar, staring moodily into his Terrorific 'Tini. On the adjacent stool Blinky shook his head in commiseration.

"I know it's rough, Boss. But after all, it *is* our turn in the barrel. Nobody else wants to fly with him, either. We'll just have to grit our teeth and hang on till the trip's over."

"Blinky, m'lad," the Rotund One moaned, "I don't know if I *can* hang on that long. They say that out of the last three crews he's flown with, two of the AC's have put in for a DOS and five engineers are gonna retire. And half the IP's in the squadron are trying to get rated supp jobs. If it keeps up, there won't be anybody left in the squadron but you 'n me—and I'm not too sure about me!"

"Why don't they give him some additional duties—you know, kind of get him away from flying the line so much?"

"They tried that," C.R. answered glumly. "He couldn't handle any of the regular stuff, so they made one up: Squadron Rodent and Pest Control Officer. Figured he'd keep busy looking for cockroaches in the closets."

"What happened?"

C.R. snorted. "He set a rat trap in the Old Man's desk

The Errant Aeronaut and the World's Worst Copilot team up for an attempt at the Starlifter Split-S record.

drawer."

Blinky's eyes widened in amazement. "So that's why the CO was walking around with his hand bandaged and wouldn't talk about what happened!"

"Yeah," C.R. replied, "and that isn't the worst of it. Remember the night they stopped him for driving with his lights out?"

"Yeah, I remember—he said he was conserving energy. And how about the time he told that Polack joke to Colonel Kowalski from MAC Stan-Eval?"

C.R. shuddered at the memory. "Or that mess this morning—how can anybody get lost between the VOQ and the crew bus? Where did they finally find him, anyway?"

Blinky suppressed a giggle. "You may not believe it, Boss, but they finally tracked him down in the Information Office. He said he wanted some information on how to get to the flight line."

"I can believe it," C.R. groaned. "M'lad, let us give thanks that we're homeward bound on the morrow. Only a couple more days and we'll be rid of—oh, curses!"

"What's the matter, Sir?"

"Here he comes now, and he's got us in sight—no chance to duck. Cover your wallet, Blinky."

The young navigator followed C.R.'s apprehensive gaze toward the door. An eager-looking lieutenant, in size and appearance much like the Master Manipulator himself, was making his way toward the bar, stumbling occasionally over the flower pattern in the rug. His slightly glazed expression and the fact that his shirt was buttoned wrong left no doubt: It was Hamilton "Ham" Hand, by unanimous acclaim the World's Worst Copilot.

"Hi, Major Terror! Hi, Blinky!" he greeted his fellow crewmembers enthusiastically. "You guys ready to roll?"

"Ah, count me out, Ham," Blinky interjected quickly. He had long ago discovered Ham's only talent and decided he couldn't afford another demonstration.

"Oh. Okay, Sir, I guess it's just you and me. I'll start." He grabbed the dice cup and expertly flipped it over in front of C.R. Four aces and a six tumbled onto the bar.

"Let's see," the lieutenant mused. "That's four ones, and there's two threes on that other one—is that any good?"

C.R. rolled his eyes wearily toward the heavens. It was going to be another one of those nights.

The night did indeed live up to the Round One's expectations, and he awoke the next morning with a lighter wallet but a much heavier head. Breakfast helped a little, although the sight of Hand pouring syrup over his chili didn't do much for the Paunchus Pilot's gastrointestinal well-being. Finally, however, the preflight preparations were over and the crew waited patiently in the cockpit of the Starlifter for their clearance.

"MAC 60135, Yokota, you're cleared to the Elmendorf airport via Niigata, Sendai, Seabass, flight plan route, maintain FL 370. Cross Niigata at or above FL 330. Departure control frequency will be 363.8 or 122.1, squawk 0436. Read back."

Ham mashed down the mike

button before C.R. could stop him. "Okay, Yokota, this is MAC—uhh—well, anyway, I bet I got this one. We're cleared to, ahh, Alaska via Niagara, Shanghai, ahh, Seabiscuit, and the FLIP Enroute, cross it at FL 030, talk to departure on 638.3 or 12.12, squawk 36-23-36. Right?" He smiled in satisfaction.

A short time later, after a red-faced C.R. and the chuckling controller had gotten the clearance straightened out, the Master Manipulator turned to his navigator.

"Whattaya think, Blinky—can we make that altitude restriction?"

"I think so, Boss, if this temperature deviation is right, but it'll be close. How come you filed that way, anyway? The computer flight plan had a lot easier route."

"Hrrumph!" snorted the Pompous One. "Been doing it like that since '65, m'lad. Don't see any reason to change now. Commencing - motors - checklist!"

Things went relatively smoothly through engine start and taxi out. Hand's tendency to read checklists over the radio slowed things down somewhat, but finally the big Starlifter was thundering down the runway toward liftoff.

As marker speed approached, C.R. glanced toward his copilot. As the World's Greatest suspected, the lieutenant was sitting with furrowed brow, lips moving futilely as he tried to remember the word "rotate." C.R. sighed in resignation, lifted the aircraft off the runway at rotation speed, and then watched as Ham's face lit up in triumph.

"I got it—reject!"

"Forget it, Hand. You can try it again next time. Now if it's not too much to ask, how about getting the gear up?"

"Ah, yessir, the gear, okay, sure." The Bumbling Brown-Bar touched the spoiler lever, changed his mind, then tried the flap handle. Deciding he still hadn't located the right control, Hand crossed his arms, leaned back, and contemplated the cockpit. Then, beaming with the pride of accomplishment, he extended his left arm in a most deliberate motion and slowly moved the gear handle to the up position. C.R. watched in open mouthed amazement, then shook his head grimly and resigned himself to a long and exhausting flight.

As the flight approached Niigata and FL 330, Blinky remembered a request from the weather forecaster at Yokota.

"Sir," he called, "the weatherman wanted a PIREP on departure. We'd better call it in before we get out of range."

"Blinky, m'lad, you're absolutely right," the Ambient Aeronaut replied. "Those boys need all the help they can get. Hand, take care of it."

The copilot looked up from his flight lunch, which he had been nibbling on since liftoff. "Ah, pardon me, Sir. Take care of what?"

"A PIREP for the guy with the crystal ball back at Yokota. Just call Metro on channel 13. Now that's not too tough, is it?"

"Uh, no, Sir, I guess not." Hand gazed thoughtfully at his flight lunch. "I'll give 'em a PIREP if you want. I just don't see why they'd be interested in my pie. It wasn't bad, but—"

"No, you idiot!" C.R. broke in. "Not a *pie* report, a *pilot* report. It's . . . oh, forget it, Hand. When we get back I'm going to pull every string I can reach to get you assigned to the Pentagon where you belong. Now shut up and watch the airplane. I'll take care of the PIREP." Fuming, the Master Manipulator grabbed the enroute supplement and began looking up the frequency for Yokota Metro.

He was busily engaged in conversation with the weatherman when Blinky, who had been monitoring their course and altitude, noticed that they were almost at Niigata and still had nearly a thousand feet to climb to FL 330. Fearing to interrupt C.R. in his current mood, he addressed his comment to the thoroughly abashed copilot.

"Hey, Ham, it doesn't look like we're going to make that restriction. How about requesting a three-sixty?"

At this point, the Neophyte

Non-Communicator wasn't particularly eager to try the radios again. "Uh, I don't think we'll have to, Blinky. We've got plenty of airspeed; I'll just zoom 'er up a little bit." Unnoticed by the preoccupied C.R., he reached for the autopilot pitch wheel and rolled in a healthy chunk of nose-up attitude. The climb rate increased quickly and the airspeed began to drop.

The steadily slowing heavyweight aircraft reached FL 330 just as the navaids indicated station passage. Blinky noted the fact that they'd barely made their altitude restriction—but the marginal true airspeed indication didn't catch his eye.

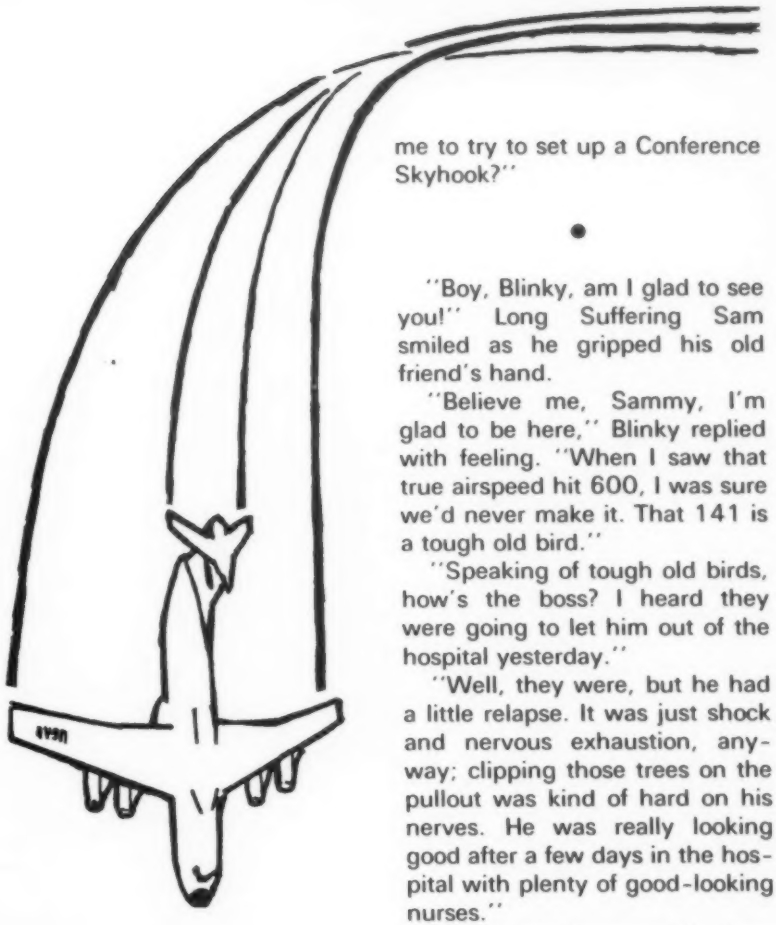
"Well, looks like we made it. Outbound's—"

"Got it set in already, Blinky. See—I'm way ahead of you this time," Hand confidently replied. He reached for the turn knob and spun it all the way to the right. Sluggishly, the floundering Starlifter began rolling into a 40-degree bank.

In the left seat, the World's Greatest Aviator finished his conversation with Metro just as the shakers began their warning buzz. "What the—" he exclaimed.

"No problem, Boss, I had this in the simulator just last week," his right-seater replied. He reached up and turned off the stall prevention switches. The shakers stopped. "See, it's just a matter of knowing the systems."

"Nooooo!" C.R. cried, grabbing for the yoke. It was too late. The Starlifter shuddered, bucked, rolled inverted, and plunged earthward like a streamlined anvil.



The Round One fought frantically to pull the aircraft out of the dive. He looked over at Hand, who was looking puzzled and fiddling with something on the instrument panel. "Hand! What in blazes are you doing? Get on the controls—I need help!"

"Uh, sorry, Skipper. Something's wrong with my ADI; it's all black and I can't get it back where it belongs with the trim knob. And what's that weird noise in the headset, anyway?"

"You idiot," C.R. shrieked, "we're out of control! That's the overspeed warning!"

"Oh." Hand looked thoughtful for a moment. Then he asked brightly, "Uhh— do you want me to try to set up a Conference Skyhook?"

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"Boy, Blinky, am I glad to see you!" Long Suffering Sam smiled as he gripped his old friend's hand.

"Believe me, Sammy, I'm glad to be here," Blinky replied with feeling. "When I saw that true airspeed hit 600, I was sure we'd never make it. That 141 is a tough old bird."

"Speaking of tough old birds, how's the boss? I heard they were going to let him out of the hospital yesterday."

"Well, they were, but he had a little relapse. It was just shock and nervous exhaustion, anyway; clipping those trees on the pullout was kind of hard on his nerves. He was really looking good after a few days in the hospital with plenty of good-looking nurses."

"So what happened?" Sam asked. "Why the relapse?"

"Well, when they got pretty well into the investigation, they told him that it wasn't his fault and that he might even be recommended for a decoration for saving the airplane."

"Knowing Major Terror, I can understand why that would get to him."

"Oh, that wasn't what did it, Sam. It was a shock, all right—but what did him in was what his favorite nurse brought him for lunch."

"All right, Blinky, give. What was it?" Sam asked impatiently.

Blinky giggled. "Well, it was a *ham* sandwich—and a piece of *pie!*"

Quick Stoppers

Yoke Broke

You're on a night air refueling training mission and hooked up to the tanker when, oops, the control column breaks off in your hands. What now?

A C-5 copilot found himself in such a situation, but promptly transferred control of the aircraft to the pilot who made a successful disconnect. Controlling the aircraft was no problem, but even a copilot needs an interphone switch. No big thing there, either. Since the trim and interphone switch were undamaged, the crew taped the grip back onto the remainder of the yoke with coffee stirring sticks and tape. A sticky situation to say the least.

The control wheel had broken off approximately five inches below the switches on the right handle grip. Several months earlier the same thing had happened to another Galaxy. Corrective measures are underway to ensure that copilots retain their capability to keep a firm grip on things.

Different Story, Same Ending

You've heard the punch line before, or one very much like it: "The left wingtip struck an aircraft boarding staircase, tearing a 14-inch gash in the leading edge and a 12-inch hole in the aft wingtip honeycomb structure." Just another unhappy ending—but parts of the story leading to the crunch are not what you'd expect. For example:

- It was a clear, sunny morning with no restriction to visibility.
- The aircraft commander's experience and qualification were above average.
- The jump seat occupant did not assist in clearing, nor did the aircraft commander ask him to do so.
- About 25 feet before striking the staircase, the wingtip passed *six inches* above the cab of a truck—which the aircraft commander had seen and was trying to avoid.
- The marshaller did not see either the truck or the staircase and did not realize that the collision had occurred.
- Tower personnel saw the impending collision and tried to stop the aircraft by broadcasting on UHF/VHF tower and UHF ground frequencies; the crew did not respond to these transmissions for 22 seconds.
- The aircrew was unaware of the mishap until notified by the tower.

Of course, no matter how different the story is, the saddest part is that it didn't have to end that way.

A Helpless Feeling

If you've ever had that helpless feeling of seeing an accident in the making and being unable to prevent it, you can appreciate the plight of this C-141 crew chief.

The aircrew was in the cockpit awaiting refueling when the crew chief saw the fuel truck pull up. He also noticed something else. The truck, parked in an unlighted area, began backing into position to refuel—without a spotter or anyone else directing it.

His nervousness now elevated to the near panic level, the crew chief broke into a run, yelling at the top of his voice for the driver to stop. But it was no use. The high noise level on the ramp drowned out his warnings and the truck rammed into the side of the Starlifter. The right main landing gear door was damaged.

Refueling procedures were designed with several purposes in mind, one of which is to prevent mishaps such as this.

Greasing It In

The C-135 touched down within the first 2,500 feet of the 11,700-foot- long runway and rolled out to the end. The pilot decided not to use reverse thrust since the aircraft had just been washed and the landing roll was computed at only 5,200 feet.

The big jet taxied back to the parking area and transient maintenance personnel saw flames coming from the number five and six axle area. They extinguished the fire before it got out of control.

The pilot had not used the brakes excessively, having initiated braking at 105 knots. So what was the problem? Investigators determined that the fire was caused by excessive grease which had been applied to the brake support collar during system calibration and washing prior to a corrosion control phase inspection. Warnings on inspection cards caution, "Do not lubricate the brake support collar assembly at this inspection. Excess grease could affect braking and create a fire hazard."

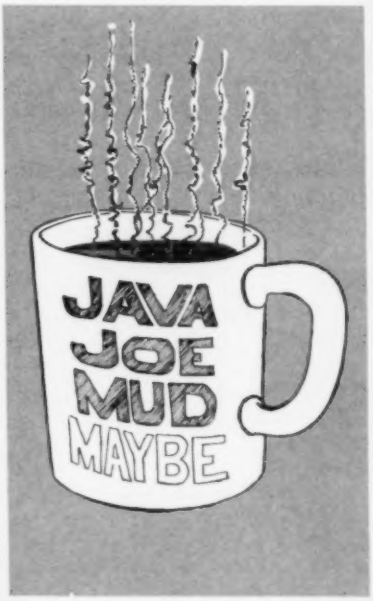
As usual, the card was correct.

Aeronautical Nausea

This one's still a puzzler, but it should keep you aircrewmembers on your toes as far as in-flight eating habits are concerned.

After five hours of flight, three of the C-130E crewmen began feeling hot, feverish, and sick to their stomachs. Their symptoms couldn't be attributed to turbulence since the flight had been smooth, so the mission was terminated.

A flight surgeon met the aircraft, examined the three men and picked up the coffee for analysis since only the three men who had drunk it became ill. The men recovered after a couple of hours on the ground. The coffee was analyzed but, oddly enough, there was no evidence of contamination. Medical personnel ruled out food poisoning altogether as a cause of the incident and could not verify motion sickness as a factor.



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Tower Power

The proficiency ride was interrupted when the tower operator reported that his radios were about to lose power; water was leaking from an air conditioning unit onto the electronic equipment.

As tower's transmissions became weaker, the crew contacted squadron operations for assistance in obtaining landing clearance. Unaware that the power outage had also extinguished tower's lights, operations advised the crew to watch for a green light for landing permission.

The instructor pilot had his hands full with the radio so the evaluator pilot, who was flying, began running the checklist. To make matters even more freaky a maintenance man, transmitting on tower frequency for permission to run an engine, began a drawn-out conversation.

As the aircraft descended closer to the ground, the ground controller, who had been watching the approach, saw that the plane was about to land gear up. GCA was quickly contacted by landline and the aircraft was directed to go around. Following the near mishap, the aircraft landed with no further problems.

Investigators determined that the communications difficulties had caused distraction during checklist accomplishment and that both pilots had overlooked the gear check. A psychological set after flying three approaches with the gear down may also have contributed to this omission.

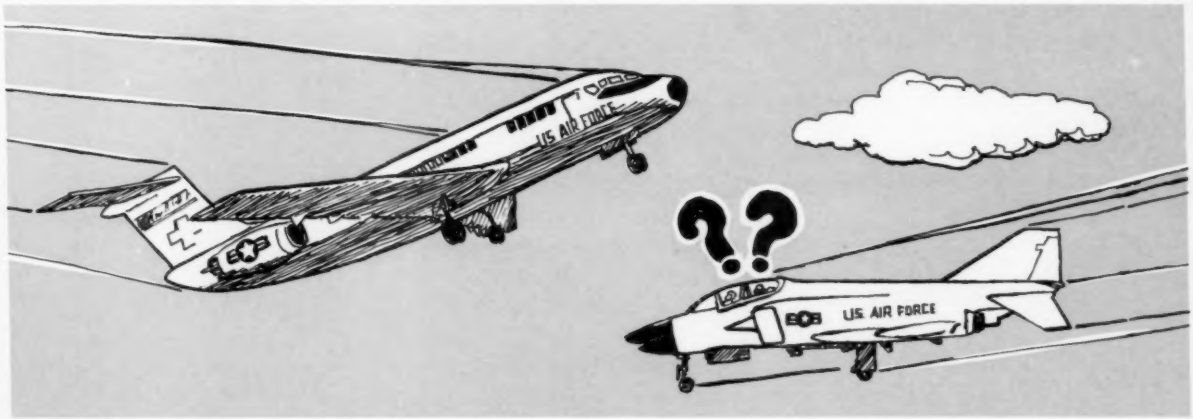
Checklist, checklist, checklist!

Climbing Descent

Question: When does an aircraft appear to be climbing when it is actually descending? Answer: When the aircraft is slowly descending in the pattern and its nose is ten degrees high during a simulated engine-out.

Second question: What prevented a midair when an F-4, on a collision course, flew beneath the apparently climbing C-9? Answer: Probably luck.

An investigation into this near-midair revealed serious deficiencies in the way the arrival controller, who was training a student, handled the two aircraft. Vertical separation was not maintained. But the near-miss demonstrated why aircraft conducting simulated emergencies are required to make this known to the controlling agency. In this incident, neither the arrival controller nor the F-4 pilot was aware the C-9 was in a configuration which made it appear to be climbing.



after deadline . . . .

GET YOUR RED HOT NOTAMS HERE! Stale notams may be a thing of the past if an upcoming 90-day test of a new notam distribution system works out. Beginning 25 August, notam information will be available through the CONUS Meteorological Data System (COMEDS) terminal at many USAF base weather stations or base ops. Just look up the appropriate code number for your destination in the IFR supplement and give it to the COMEDS operator. Minutes later, you'll have a hard-copy printout of notams for your destination, as well as for other military airfields in the area. And it'll be fresh information, since the computer's data base is updated as changes occur--no more built-in delay while hourly changes are consolidated, transmitted, and posted. FAA notams for civil and joint-use airfields may be added to the program later.

MAC GETS THE BRUSH--There's a new, slightly sinister, and very funny character roaming the byways of the MAC system. He's known as the Sage Brush. His last assignment was with the Aerospace Defense Command, where his work desecrated the pages of the 25th Air Division's Skywatch magazine. Now that he's been transferred to MAC, he's agreed to perform the same service (?) for TMF (see "Helicopter Pilots Are Different" in the July issue.) Watch for more examples of his sage outlook on life as the Brush tries to adjust to the world's largest non-afterburning major air command.

NEXT MONTH--

A Hercules crew discovers the real meaning of multiple malfunctions in "An Arctic Odyssey."

Our third place contest winner takes us on a shorter, but no less thrilling, aerial adventure.

C.R. Terror suffers a near-fatal Big MAC Attack.

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Who's C.R. Terror??
Where's my C. R. Terror T-shirt?
I'd like more articles on Navigators.
You guys must be a bunch of meatheads!
It's good, but where can I cash a check?
1600 Pennsy
Washingt
Trust me. I think THE MAC FLYER is
C. R. Terror is my hero!
with the compliments of
The MAC Flyer
The guy who writes your Letters to the Editor should write the rest of the magazine.
- Anonymous
More Coloring Exercises!
a pilot
THE MAC FLYER is a sexist rag!
An outstanding publication, but occasionally lacking in veracity when reporting on my stellar aeronautical accomplishments --
C. R. Terror